

years, and an expectorating cough for two weeks were the only symptoms. Laryngotomy. Tamponade of trachea. Excision by scissors of a small pea-sized tumor from the front third of the left vocal cord. Seried suture. Cure with normal voice.—*Baseler Spital Bericht. f.* 1885.

ABDOMEN.

I. Gastrostomy with Double Stricture of the Œsophagus.

By Dr. B. SCHLEGTENDAL (Hannover). The patient was a woman, æt. 24, who four years previously had suffered from severe diphtheria of the throat. Since that time gradually increased difficulty in swallowing. She claimed not to have been able to swallow anything the last week; everything stuck in the throat, and was immediately gagged up. Fluids returned so quickly and completely that they could not have passed down any distance. The finest sound even did not go beyond the aditus laryngis. The obstruction was evidently high up. She was excessively emaciated; no other cause than inanition. Nutrient enema for two days made no objective impression on her condition.

The operation was difficult; stomach stitched to the abdominal opening; morphine injected. That afternoon and during the remainder of life she vomited up an abundant quantity of fœtid, dirty, gray-brown fluid. Rectal alimentation continued. Her failing condition necessitated opening into the stomach a day after the first operation. This viscus was filled with thick fluid, gall-green material in contrast to the vomit. The stomach was washed out, when strong bouillon was well tolerated. A few hours later her condition grew worse, and despite further stimulating, death ensued 45 hours after the first operation.

The autopsy showed that union had taken place between the wound edges of stomach and abdomen. No other sign of peritonitis than slight fluid in abdomen. The fauces narrowed just back of the epiglottis to a funnel with a closed bottom. No passage from above could be found through the cicatricial stricture, though from below a fair sized sound could be passed up through. Below this the œsophagus widened into a broad fusiform dilatation. This still contained

considerable material like that vomited. A second stricture, quite like the first, existed at the cardia. This also admitted no sound from above, though readily from below. The vomiting of material unlike the stomach contents was thus explained. No history of syphilis. The origin of the lower stricture was not clear. In such a case œsophagotomy would be quite out of place.—*Arch. f. klin. Chir.*, 1886, Bd. 34, Hft. iii.

W. BROWNING (Brooklyn.)

II. Laparotomy as a Diagnostic Resource. By T. GAILLARD THOMAS, M. D. (New York). After an experience yielded by seven or eight hundred cases, approximately, of laparotomy for various causes, extending over a period of twenty-three years, the author is sure he can say with entire truth that he has never once regretted opening the abdomen, and that he has in a dozen cases at least, deeply regretted having failed to do so. It is in his mind certain that in the future, explorative abdominal incision will become the rule in all cases of the following conditions, which do not yield to medical means, and concerning the etiology of which there is great doubt: (1). Wounds and injuries of the abdominal viscera. (2). Intestinal obstruction. (3). The presence of stones in the gall-bladder or kidneys. (4). The accumulation of blood, pus or serous fluid from any cause. (5). The existence of a neoplasm in any part of the abdomen. (6). The occurrence of serious organic changes in certain of the viscera of the abdomen, such as the kidneys, the uterus, the Fallopian tubes, the ovaries or the spleen. (7). Ectopic gestation. After the recital of several cases, showing the disadvantages of non-interference and the beneficial effects of the more active measures, he dwells particularly upon the operation in *ascites of the female* due to the existence of neoplasms within the peritoneal cavity; some cases of excessive ascites, which by repeated tapplings prove fatal, are due to insignificant uterine or ovarian tumors, which are too small for recognition, unless specially and carefully sought for, and the removal of which relieves the fluid accumulation which by its exhausting influence destroys life. These tumors are sometimes no larger than small ap-

ples, and cannot be recognized except by the careful examination of an expert. In stout women, or even in those that are thin, after accumulation of ascitic fluid, they cannot be discovered even by a master in diagnosis. It is very difficult, indeed impossible, to tell why in a certain small number of cases these tumors create ascites, while in others they may occupy the peritoneal cavity for years without causing any such trouble, but that such is the fact is beyond question. He presents five cases in the belief that, resting upon them, he may assume the position that in case of ascites in the female, before the patient is relegated to the usual practice of repeated tapping with its universally barren results as to cure, the most thorough investigation as to the possible existence of small neoplasms as important pathological factors should be made, and if signs of their existence be obtained, explorative incision should be practiced as a forlorn hope that relief may be obtained by their removal. In closing, he notes two points, the first is the singular and to him inexplicable fact that in certain cases of abdominal incision in which diagnosis only is practicable, and in others in which removal of the tubes and ovaries proves to be impossible, great improvement sometimes results to the patient's general and local constitution from the explorative effort alone. The second point is the necessity for the observance of certain rules, viz., (1). Every explorative incision should be made under the strictest antiseptic precautions; as to strict cleanliness, all are agreed; if antiseptics of chemical character are valueless, they at least in all probability do no harm; while the question as to their utility is *sub judice*, give the patient the benefit of the doubt and employ them. (2). Always employ an anæsthetic, lest the complaints of the patient should frustrate the investigation or render it superficial and uncertain. (3). Always make an incision which will admit the whole hand; one which will admit two fingers only is hardly warrantable; if possible, let but one man's hand be passed into the abdominal cavity. In a multitude of council, there is in these cases danger. The brain which guides the hand should be competent to decide the question at issue. (4). Never hurry an explorative incision, but never prolong one unnecessarily. Let discussion as to diagnosis occur after the peritoneum is

closed, not while it is open, and let the fact be appreciated that the clinical lecture, which is so common at this moment, is always a source of great danger.—*Med. News*, Dec. 11, 1886.

III. Gun-shot Wounds of the Intestine. By W. S. TREMAINE, M. D. (U. S. Army). In opening a discussion in the New York State Medical Association, the writer, after noticing the meagreness of text-book information on this subject, remarked that the calibre of the ball, the proximity of the weapon and the position of the wounds of exit and of entrance have an important bearing. As regards general symptoms, the existence of prolonged shock, a lowered temperature, a feeble pulse, great restlessness, marked anxiety of countenance, accompanied by tympanites and great pain, taken in connection with the anatomical location of the wound, afford very strong evidence of a perforating wound of the intestine. The escape of blood from the anus rarely happens soon after the injury, and is consequently of little value as a diagnostic sign. Incision in the median line is proper for exploratory purposes: (1). Because the intestines may be wounded. (2). In any event, it is in nine cases out of ten required for the removal of effused blood which it is dangerous to allow to remain. (3). The abdominal section adds but little, if any, danger when done with proper precautions. (4). The assurance which may be given to the patient that his intestines have not sustained a fatal wound, which cannot but have a marked tonic effect conducive to recovery. Perforation of the intestines is an unquestionable indication for the performance of laparotomy with enterorrhaphy, since it is doubtful if there is any well authenticated case of recovery after a perforating gun-shot wound of the intestines with faecal extravasation, while we have the positive evidence in favor of laparotomy of the cases of Bull and Hamilton (in Vols. i, ii and iv of the *ANNALS OF SURGERY*). The operation having been decided upon, it should be done as soon as possible after the receipt of the injury for the following reasons: (1). It is believed that the first effect of the injury is to paralyze temporarily the peristaltic action of the bowels, thus for a time preventing faecal extravasation. (2). It is obvious that moving the patient, if it does not overcome this, will tend to displace mechan-

ically some of the contents of the intestines. (3). If intra-abdominal hæmorrhage is going on, it will not be likely to stop spontaneously; moving the patient will not, it is certain, conduce to the arrest of hæmorrhage, if it exists. (4) Delay increases the chances of peritonitis, thus bringing secondary troubles to add to the primary one, already grave enough. Whenever practicable, however, it is believed that the dangers of removal will be counterbalanced by placing the patient where the sanitary surroundings are good and where skilled assistance and sanitary appliances can be had.

With regard to the battlefield, where it is obvious that the greater number of gun-shot wounds occur, the difficulties of immediate laparotomy amid the smoke, dust, haste, confusion and pressing demands upon the time of the military surgeon in actual hostilities, will not at any rate be easy to overcome, although they may not be found insurmountable in the future; the modern rifle bullet weighing 500 grains or more, must inflict a considerably more serious wound than the small pistol bullet of 22 or 32 calibre which has caused the wound from which recovery has been obtained. In the light of present experience, it would seem the better practice to wait until the wounded man can be carefully removed to a division hospital, in the meantime occluding the external wound or wounds by some convenient form of antiseptic pad.

The Lembert suture is recommended for intestinal wounds. For occluding the lumen of the intestine above and below the injured part, in case resection is demanded, the writer had found the ordinary spring clothes-pin, slightly altered, as it may be in a few minutes to answer the purpose. It is suggested that as a precaution against the escape of blood and the contents of the intestine into the peritoneal cavity, the portions of the intestine to be operated upon be drawn through an opening in a piece of the thin india rubber dam of dentists. As the bowel derives its blood supply from the mesentery, it is important, in order to prevent gangrene, to preserve the mesenteric attachment as far as possible. When necessary, a V-shaped portion of the adjacent mesentery can be removed, and this wound closed by the continuous catgut suture. With regard to the amount of intestine to be removed with safety, Baum's patient who died from progressive

emaciation six months after recovery from the resection of 137 centimeters of small intestine, would seem to indicate that there is a limit to the amount that can be removed without impairing the patient's health. The paper closes with a case of stab-wound of the abdominal wall, the skin of which only had been sutured by a physician who ordered a grain of opium hourly. On admission to hospital, nine hours later, the gut was found protruding through the abdominal wall and distending the skin. Laparotomy and the removal of about a pint and a half of clotted blood from the abdominal cavity which was thoroughly irrigated antiseptically. The closure of the accidental and operation wounds and careful antiseptic dressing did not save the patient, who never rallied. Having taken eight grains of opium before the operation, it was doubted whether he died from opium narcosis, from the wound or from both combined.—*Med. News*, Nov. 27, 1886.

IV. Diagnostic Signs of Involvement of the Intestine in Shot-wounds of the Abdomen. By JOSEPH D. BRYANT, M. D. (New York). The signs of intestinal involvement are divisible into two classes: (1). Those referable to the abdomen itself, or local signs. (2). Those referable to the constitutional effects of the injury, the constitutional or general signs. Considering the local signs, the direction of the wound, the character of the discharge from it, and emphysema of its borders or of the neighboring connective tissue are all of importance in a diagnostic sense. The direction of the missile is an important though not a positive sign. In case of hæmorrhage, if the bleeding points found in the abdominal wall do not account for the entire loss of blood, the evidence of intra-abdominal hæmorrhage, dependent on intra-abdominal involvement, is conclusive. Bloody stools at a period near that of the injury will serve to confirm the belief that may exist of intra-abdominal involvement. The escape of intestinal contents from the abdominal wound is positive proof of involvement of the intestine, but as the extravasated fluids are quite easily retained in the abdomen, this is infrequently seen as an immediate sign. While early emphysema of the abdominal wall surrounding the wound, which has been considered by some writers as a certain sign of intestinal perforation when associated with a suspected ab-

dominal wound, is generally such a sign, yet a circumscribed subcutaneous emphysema may take place around non-penetrating wounds. Pain, tenderness and retention of urine are signs of common occurrence. The substitution of tympanitic resonance for normal hepatic dulness may be considered an almost pathognomonic diagnostic sign of even a small amount of air in the peritoneal cavity, though it may be due to adhesions of the intestine to the abdominal wall in this situation, to a distended colon pressing firmly against the under surface of the liver and to distension of the colon, accompanied by a diminished area of hepatic dulness due to a contracted liver. Percussion of the abdominal wall may elicit an abnormal line of dulness due to fluids in the abdominal cavity. The constitutional or general signs having a recognized bearing on the diagnosis of intestinal involvement are shock, nausea, vomiting and hiccough. While the gravity of the shock may depend either upon the degree or upon the idiosyncrasy of the patient, yet severe shock at the beginning may be considered as almost diagnostic of a profuse hæmorrhage or an extensive visceral involvement. Intense thirst, constant wakefulness, excessive restlessness and great anxiety are manifestations of intestinal involvement. All of them are associated more or less intimately with shock, and the first of them with the initial processes of a consequent peritoneal inflammation.—*Med. News*, Nov. 27, 1886.

V. The Circumstances under which and how soon after the Injury, Laparotomy should be resorted to in Shot Wounds of the Abdomen, and when the Operation is Contra-indicated. By WILLIAM T. BULL, M. D. (New York). Considering it settled that laparotomy is the best treatment for shot-wounds of the intestine and that it is generally indicated, the surgeon is brought to a standstill by the fact that many cases present few or none of the diagnostic symptoms of intestinal involvement; it is often impossible to ascertain by the usual exploration with probes whether a wound of the parietes be penetrating or not; and even when the intestine has been perforated, positive symptoms of the injury are often wanting at the outset; again, if laparotomy be delayed until the symptoms have made the diagnosis, it will be undertaken with very much diminished

chances of success. With the one exception then of cases where the wound is situated in the posterior wall of the abdomen or in the lateral wall covered by the lower ribs, and there is no evidence of any wound anteriorly—where enlargement of the wound of entrance would not permit a satisfactory inspection of the cavity, and there are many chances of the missile being lodged in the thick layer of muscles or deflected by the ribs—and the single contraindication of profound and prolonged shock, the writer is convinced that the surest, safest and quickest way of dealing with shot-wounds of the abdomen is first to assure one's self by exploration of the wound of entrance that the cavity has been entered or the gut injured, and then to repair that injury by laparotomy. A penetrating wound enlarged to two or three inches in length will permit the inspection of the viscera in the neighborhood and the examination of other parts with a sponge or the finger. In the further exploration of the viscera, section in the median line is preferable; as a general rule, it is believed that it will be safer in the aggregate of cases to perform laparotomy when the wound is found to be penetrating, even if the cavity be tolerably clean. He reports eight cases in three of which laparotomy was performed, with one death and two recoveries; the latter may be found in detail in the *ANNALS OF SURGERY*, vol. i., p. 479 and vol. iv., p. 468. It was remarked that the subject of the first operation is living after two years, and in good health. The unsuccessful case occurred in a muscular mechanic of intemperate habits, æt. 24, who was shot in the back ten minutes before admission to the hospital, the bullet, of 44-calibre, entering $1\frac{1}{2}$ inches to the right of the spine, on a level with the last rib, and could be felt anteriorly beneath the skin $1\frac{1}{2}$ inches to the right and 2 inches above the umbilicus. Pulse 62; resp. 22; temp. 98°. Severe abdominal pain; surface pale and extremities cool; an hour later the contents of the stomach were vomited. Five hours later he was still pale but warm; had severe pain. Pulse 92; resp. 35; temp. 98. Hepatic dullness diminished but not absent; abdomen not swollen, tender about bullet; left lumbar region resonant, right dull—dullness differs on turning to the left side (bloody fluid in cavity). The bullet was removed by a three-inch incision and the finger passed into the cavity; considerable

bloody serum followed its withdrawal, the latter thought by some to be of faecal odor; no faeces. The abdomen was then opened in the median line from three inches below the sternum to two inches above the pubis—eleven inches. One or two pints of bloody serum and clots were turned out, four perforations, two of the jejunum and two of the transverse colon were sutured with Lembert's suture; the stomach, liver and spleen were inspected and the intestines and cavity thoroughly washed with carbolic acid solution (1%). The posterior wound was covered with iodoform compress. In holding the small intestine out of the wound, a vein in the gastro-splenic omentum was torn but firmly secured with ligature. The point of entrance of the bullet was not detected. The tissues of the ascending mesocolon were stained black with extravasated fluid. The operation lasted $1\frac{3}{4}$ hours; at its close the pulse was 125 (small); resp. 42. Reaction was imperfect, and death ensued at the end of eight hours. The autopsy did not disclose the point of entrance into the abdominal cavity. In the retroperitoneal tissues, about the kidney and ascending colon, was extensive extravasation of blood. Kidney uninjured; some bloody serum in the cavity. The wounds were tightly closed, and no others were found. The remaining five cases were not subjected to operation. All were fatal, but were shown by autopsy to have been well adapted to operation and were the means of convincing the author of the advisability of laparotomy for the relief of these accidents. In reviewing the contraindications to laparotomy, the writer rejects peritonitis in view of the fact that it is no longer considered an obstacle to operations for the removal of tumors nor for intestinal obstruction, and that it has been cured by laparotomy with irrigation and drainage; this leaves profound and prolonged shock and those conditions which determine it, such as wounds of the solid viscera, as the only contraindications.

THEODORE R. VARICK, M. D. (Jersey City) remarked that the indications for treatment were based on the recognition of the various factors leading to death, which are, primarily shock and hæmorrhage, and secondarily peritonitis resulting from the wounds and the extravasation of intestinal contents into the peritoneal cavity, which, if life be

sufficiently prolonged. terminates in sepsis. The gravity of these wounds is modified by location and size, whether affecting the large or small intestine or. inflicted from behind, opening the gut where it is uncovered by peritoneum, and whether it is a simple or multiple perforation or complicated by the opening of an artery or vein. The contraindications are only such as would foreshadow the rapid approach of dissolution, when the operation would be absolutely useless. Shock, to a greater or less extent, accompanies all shot-wounds, but when taken in connection with gradually increasing evidence of exhaustion, such as rigidity and feebleness of pulse, jactitation, sighing respiration and sinking temperature, indicating intra-abdominal hæmorrhage, and in cases in which in addition is found dulness at the more dependent portions of the abdomen, with tympanitic distention of the anterior portion, immediate laparotomy is clearly indicated, that the bleeding vessels may be tied and the extravasations removed. He would give the patient the benefit of a chance, no matter how small, against an almost absolute certainty of death.—*Med. News.* Nov. 27, 1886.

VI. The Essential Features of the Technique of Laparotomy, Including the Management of the Wounded Intestine. By JOHN B. HAMILTON (Washington, D. C.) The first question in case of a shot-wound of the abdomen is whether the abdominal cavity has been opened; to settle this the writer advocates the use of the probe; restricting its use, however, to small pistol-shot-wounds and using a flexible probe which can do no harm; the only danger in using a probe is in using too small a one. He considers the operation indicated whenever the surgeon believes the intestine has been perforated and as early as possible; and contraindicated after the lapse of forty-eight hours from the time of injury and where the patient is in a state of collapse and peritonitis present. The technique of the operation does not differ from that of any other laparotomy, except as to the management of the intestine; as a matter of course, the usual antiseptic precautions are to be taken and hot towels placed over the chest, stomach and intestines; on opening the abdominal cavity, first look for bleeding vessels, carefully examining the omentum and tying all bleeding points, attending to the slightest abrasion of the mesen-

tery with great care. The intestines should be drawn out loop by loop with the finger, which is better than instruments for this purpose. As the intestines are drawn out lay them on a hot towel and cover them with another one wrung out in hot sublimate solution. When the wounds are found, stitch them up as fast as possible, but be careful not to wound the mucous membrane; the Lembert suture is preferable for this purpose, using catgut of small size, cut short; the closure of the abdominal incision is effected as in laparotomy for other purposes, the peritoneal cavity having been previously thoroughly cleansed.—*Med. News*, Nov. 27, 1886.

VII. The Best Methods of After-treatment in cases of Gun-shot Wounds of the Intestine, where Laparotomy has been Performed. By CHARLES B. NANCREDE, M. D. (Philadelphia). The subject should be considered under three heads, (1) where peritonitis does not exist at the time of operation; in other words, when a primary operation has been performed; (2) when incipient peritonitis exists at the time of operation, and (3) when, despite all our efforts, or due to some defect in technique, peritonitis develops after the operation. In all cases, antiseptic methods should be continued. (1') Under the first condition, a recumbent position with the knees flexed, seldom changed, and then not by the patient's efforts, should be insisted upon; alimentation exclusively by the rectum should be the rule for at least twenty-four hours, when possible, and in some cases even longer; at the most, cracked ice and small quantities of beef peptonoids should be given when the rectum rejects enemata or when feeding by the mouth is begun: in case of extensive tympanites, rectal injections and enemata should be tried. (2') In case of incipient peritonitis, with the probable formation of large quantities of acrid septicæmic or sapræmic serum, precisely as in similar conditions after ovariectomy, drainage should be instituted, the tube, when possible, being of glass with the end kept well down into the recto-vesical or recto-vaginal cul-de-sac; a free or purulent discharge indicates antiseptic irrigation with a weak bichloride or boracic acid solution. (3') In peritonitis developing after the operation, the initial treatment

depends on whether the onset is gradual or sudden; in the latter case, if there be evidence of shock, as occurs at times from vaso-motor paralysis, shown by an apathetic conscious condition, with extended limbs, pinched features and a weak pulse, opium in large doses will prove fatal, but small doses of morphia with atropia will stimulate the heart. In case of later development of hypostatic pneumonia, stimulants and revulsives are indicated. In the gradual variety, freedom from pain obtained preferably by morphia hypodermically is the ideal condition. In the latter stages of peritonitis, especially when the heart and lungs fail and when gastric regurgitations and hiccough are rapidly exhausting the patient's vitality, one or more hypodermic injections of atropia, either alone or in combination with morphia, digitalis, ammonia or alcohol, will at times save an otherwise hopeless case. Free leeching early in an attack and the ice-coil to the abdomen are recommended as means of controlling peritonitis. In case of peritonitis with suspected septic intoxication, the reopening of one angle of the wound and providing antiseptic irrigation and drainage will save some otherwise fatal cases. The writer is opposed to operating in case of advanced peritonitis, because of the difficulty of, and prolonged manipulation in finding the wounded bowel, and neither free drainage nor an effectual toilet of the peritoneum could be secured.—*Med. News*, Nov. 27, 1886.

VIII. Gun-Shot Wounds of the Intestine. By CHARLES T. PARKES, M. D. (Chicago). In concluding the discussion, a brief of which is given in the five preceding abstracts Dr. Parkes remarked that sufficient data had not yet been offered upon which to base a diagnosis. In running rapidly over the various points of the discussion, he called attention to the desirability of considering the distance, shape and calibre of the bullet, and the obliquity with which it enters, relating a case of a thief shot with a 44-calibre pistol in the back; the next morning he went to the hospital, where it was found that the ball had entered the back about four inches from the spinal column and emerged near the umbilicus; he never developed any serious symptoms, and left the hospital on the second day. Every surgeon should go to a case of gun-shot wound of the abdomen prepared to operate

at once, on the spot if possible, and enjoin absolute rest. The incision should always be made in the median line; in emphasizing this point, he related two cases of lateral incision; the autopsy of the first one showed faecal matter and blood which had not been discovered by the operator. In the second case the man was sinking from hæmorrhage, and the bleeding vessel could not be found, but was traced to the opposite side of the body and could not be uncovered, and the patient died. He called attention to the necessity of care in fastening the wounds; they should not be made too tight or sloughing will occur. If the peritoneal surfaces are held together for a few hours they will firmly adhere together. —*Med. News*. Nov. 27, 1886.

IX. Explorative Laparotomy in a Case of Intestinal Obstruction; Ovariectomy and Cure. By C. R. REED, M. D. (Middleport, Ohio). A married woman, æt. 34, the mother of seven children, had suffered from obstinate constipation with, for four days, constant vomiting which had been stercoraceous for the last forty-eight hours and, in the presence of imminent dissolution, an explorative laparotomy was performed. The abdomen was enlarged and irregular, a condition which was attributed to faecal accumulation, but, on abdominal section, a hitherto unsuspected cyst of the left ovary was discovered with adhesions to the abdominal wall and also to the descending colon. The former were readily broken up, the latter with difficulty, and these were believed to be the cause of the obstruction of the bowel. The cyst was removed and the wound closed; the patient rallied well, vomiting ceased and the bowels moved spontaneously on the eighth day; the patient passed on to a satisfactory recovery in spite of an intercurrent attack of capillary bronchitis, menstruated after the third month and at the time of writing of the paper was two months pregnant. — *Jour. Am. Med. Ass'n.*, Dec 4, 1886.

X. Strangulated Hernia and Herniotomy. By P. S. CONNER, M.D., (Cincinnati, Ohio). Professor Conner furnishes an analysis of 33 herniotomies with remarks upon the treatment of strangulated hernia. Of these cases, 12 (6 males and 6 females, 36.4%) re-

covered; 21 (14 males and 7 females, 63.6%) died. Of the former, in but 3 had the strangulation existed more than twenty-four hours; of the latter, in but 2 had it existed less than that time; in the remaining 19 its duration had been in 2 seven days, in 2 over six days, in 1 four days, in 4 over three days, in 4 over two days, in 4 more than thirty-six hours, and in 2 more than twenty-four hours. Of the 33 herniotomies, 20 were done upon men, 13 upon women; 17 for inguinal ruptures, with 4 recoveries; 15 for femoral, with 8 recoveries, and 1 for umbilical, fatal. The youngest person operated upon was 20, the oldest 83 years of age; the former dying, the latter getting well. Two of the patients were between 20 and 30 years old, 4 between 30 and 40, 13 between 40 and 50, 6 between 50 and 60, 6 between 60 and 70, 1 between 70 and 80, and 1 over 80. Of those that died, 1 lived thirty-eight days (dying of a low grade of septic fever), 1 fifteen days (dying of tetanus), 1 nine days (dying of pneumonia), 1 five days, 3 less than four days, 3 less than three days, 5 less two days, and 6 died within twenty-four hours, 2 of them in less than one hour, being *in extremis* at the time of operation. In 3 cases the bowel was gangrenous when exposed, having been strangulated respectively seven, six and three days. In one case, though the strangulation had lasted but six hours, three bloody stools were passed after the operation, and, on autopsy, much coagulated blood was found in the intestine below the level of the upper constriction, due possibly to injury done during the efforts at reduction made before the man was admitted to the hospital. This was one of two cases in which there was paralysis of the constricted part of the bowel, continuing up to the time of death, two and half days after the operation was performed. In one case there was congenital absence of the right half of the scrotum with retention of a much flattened and wasted testis in the inguinal canal; the hernial pouch pushed out toward the iliac spine. In another case, the hernia had descended to the right labium, the right ovary being below it in the labium. This is the only case of inguinal hernia in the female among those operated upon. Three of the herniotomies were for femoral rupture in the male, the sac contents in two being intestine, in the other omentum. Speaking generally it is the delay in

operating that kills, not the operation. In the 33 cases under consideration, but one death was attributable to the operation, that by tetanus, a rare complication. The writer strongly emphasizes the necessity of early operation and the danger of prolonged and violent manipulation.—*Med. News.* Dec 4, 1886.

JAMES E. PILCHER (U. S. Army).

XI. An Obscure Case of Femoral Hernia. By EDWARD BELLAMY, F.R.C.S., (London). S. H., a female, æt. 67, came under the care of the author on November 5, 1885, with what was diagnosed as a large left femoral hernia, evidently containing omentum. She had been ruptured since 1867, and the hernia had never entirely returned within the abdomen since its first appearance. She had never worn a truss. She was suffering from bronchitis, and a severe coughing fit, on the morning of her admission caused the rupture to increase very much in size and become intensely painful. The bowels were opened on November 3. Under ether taxis was tried, on two occasions but unsuccessfully, and under strict antiseptic precautions herniotomy was performed. A straight incision about four inches long was made and a loop of intestine seven inches long exposed, nearly black but still glistening, together with a mass of omentum as large as the author's fist, but showing no signs of strangulation, and to which evidently the coil of intestine was attached. After dividing what appeared to be the constriction, the author found he could not reduce the bowel, and under the impression that this was owing to the adherence of the mass of omentum, after clamping it beyond, the author excised the latter with scissors and tied each bleeding point separately. The liberated gut was then apparently easily returned into the abdominal cavity. On the 6th the patient was sick, but free from pain; passed a motion; pulse 120, tongue moist, wound dressed under spray, looked well. On the 9th, died suddenly at mid-day. At the post-mortem it was found that a finger could be passed into a cavity which surrounded the femoral opening, and on opening up the wound a small piece of intestine, about the size of a pigeon's egg, was found to have descended through the canal, and to have become strangulated. This had been clearly brought down again by coughing. The large intes-

tine and stomach were empty and uninflamed. The liver was driven up. The lower part of the abdomen was occupied by a considerably distended coil of small intestine, exhibiting signs of early peritonitis. Below, this distended bowel led to the femoral ring, which it entered. Issuing from the wound was a perfectly collapsed piece of bowel, which occupied the deep part of the abdomen. The piece of bowel immediately below the opening was of a blackish color, and adherent by soft lymph to a thick mass of omentum which was firmly adherent to the left side of the inner opening of the femoral canal. Examination of the femoral canal revealed that the portion of bowel which lay external to the ring was continuous with a considerably larger portion lying in the cavity between the peritoneum on the one hand and the horizontal ramus of the pubic bone with the obturator internus on the other. Another cavity was also discovered between the peritoneum and the body of the os pubis, shut off from that above described by a complete membranous septum, having somewhat the feel of omentum. Below it was continuous with the inner wall of the femoral sheath. The author stated that from the condition of the parts, it was quite evident that the coils of intestine must, at each reduction on the patient's or medical attendant's part, have invariably been returned into one or other of the cavities above described. The secondary operation he would have performed would have been a laparotomy.—*Lancet*. Sept. 4, 1886.

II. PERCY DUNN (London).

XII. Excision of Rectum. SOCIN and KESER report three cases; two for cancer, the third for adenoma. In the first, a man of 57 years, the disease dated back five months. A relapse at the end of another five months necessitated coremoval of the tip of the coccyx. The second case was that of a woman of 62. The primary nodule was first noticed a year previously. A fistulous opening had developed into the vagina. In all three cases the patients made a good recovery from the operation.—*Jahrsbericht d. Spitals zu Basel*. für 1885.